

***Dipodium pardalinum* (Orchidaceae), a new species from Victoria and South Australia**

David L. Jones

Centre for Plant Biodiversity Research, G.P.O Box 1600, Canberra, 2601, Australian Capital Territory, Australia.

ABSTRACT

Dipodium pardalinum from Victoria and South Australia, related to *Dipodium roseum* D.L.Jones & M.A.Clem., is described and illustrated.

Introduction

Continuing studies into the genus *Dipodium* R.Br. (Jones & Clements 1987, Jones 1991) have revealed the presence of a taxon in western Victoria and south-eastern South Australia which is described here as a new species. This species was first brought to my attention from the Heathmere area by Dorothy and the late Collin Woolcock in 1991, and then by others from different localities in subsequent years. It is mentioned in the notes under *D. roseum* in volume 2 of *Flora of Victoria* (Entwisle 1994). Morphological observations during a field trip in 1994 confirmed its distinctiveness from *D. roseum* and it is here described as new.

Methods

This study is based on the morphological examination of fresh flowers collected from localities in southern Australia, examination of dissected flowers mounted on cards, also dried and spirit-preserved herbarium specimens and photographs of living flowers of the taxa involved. Herbarium collections (spirit and dried) were examined from AD, CANB, HO and MEL. Photographs of types of all pertinent described taxa have been examined including those in overseas herbaria (LINN, LIV). Measurements given in the description are from living plants or dissected flowers on cards. Notes on distribution, habitat (particularly soil and plant association) and conservation status were derived from field studies.

Taxonomy

***Dipodium pardalinum* D.L.Jones sp. nov.**

affinis *Dipodium roseo* D.L.Jones & M.A.Clem. a qua floribus perdilutibus roseis aperientibus cito albidis decolorantibus, tepalis grosse maculatis, et medilobo labelli anguste usque late elliptico et grosse punctato differt.

TYPUS: c. 4.2 km W along Jarrets Rd, Heathmere, Victoria, 38°12'S, 141°34'E, 10 Feb. 1994, *D.L. Jones 12836* & *B.E. Jones* (HOLOTYPE: CBG; ISOTYPE: AD, MEL, NSW)

Glabrous terrestrial herb. Stem bracts ovate-deltate, to 15 mm long and 20 mm wide, dark brown, fleshy, acute. *Inflorescence* 40–90 cm tall, fleshy, green to dark reddish black, bearing 10–c. 40 flowers in a loose open raceme, the peduncle much longer than the rachis. *Fertile bracts* narrowly ovate-deltate, 5–10 mm long, 2–3 mm wide, scarious, brown, acute to obtuse, closely sheathing to spreading. *Pedicels* 5–10 mm long, slender, slightly twisted, straight or curved, green to reddish brown. *Ovary* narrowly ovoid to narrowly obovoid, 4–7 mm long, 2–3 mm wide, not gibbous, smooth or sparsely verru-

cose, green or dark reddish brown. *Flowers* 20-30 mm across, opening very pale pink and quickly fading to white, with numerous irregularly shaped, coarse (mostly 0.9-1.3 mm across), dark red spots and blotches, sometimes also with red stainings; tepals strongly recurved in the distal third. *Dorsal sepal* narrowly ovate-lanceolate to narrowly elliptical, 12-20 mm long, 3-5 mm wide, obtuse to subacute. *Lateral sepals* narrowly ovate-lanceolate to narrowly elliptical, 12-20 mm long, 4-6 mm wide, asymmetrical, widely divergent, obtuse to sub-obtuse. *Petals* narrowly ovate-lanceolate, 10-20 mm long, 4-6 mm wide, asymmetrical, obliquely erect, divergent, obtuse to subacute. *Labellum* 11-17 mm long, 4.5-6 mm wide, white with coarse red spots and blotches and white hairs on the callus; lateral lobes narrowly spatulate, 3-4 mm long, 0.8-1 mm wide, obliquely erect, column-embracing, inner base sparsely puberulous, apex obtuse, often irregular; mid-lobe narrowly elliptical, 8-12 mm long, 4.5-6 mm wide, apex upcurved, obtuse when flattened, lateral margins recurved. *Labellum* hairs c. 0.5 mm long, white, erect, extending from the apex of the callus to the apex of the mid-lobe, the longest hairs near the middle, overall forming a broad patch which occupies most of the ventral surface of the mid-lobe. *Callus* consisting of two, linear-tapered, convergent, pubescent keels c. 3 mm long, 0.6 mm wide. *Column* porrect from the end of the ovary, 6-7 mm long, c. 3 mm wide, white, fleshy, with a yellow patch below the stigma on the anterior surface, pubescent below this, saccate at the base. *Anther cap* c. 1.5 mm long, c. 1.2 mm wide, with a shortly beaked rostrum. *Stigma* elliptical, c. 1 mm across, deeply sunken. *Pollinarium* c. 1.3 mm long; retinaculum ovate, c. 0.6 mm long; caudicles c. 0.3 mm long; pollinia c. 0.6 mm long, ellipsoid, waxy, dark yellow. *Capsules* obovoid, 14-18 mm long, 8-10 mm wide, pendant, green to dark red, smooth or sparingly verrucose. (Fig. 1)

ETYMOLOGY

From the Greek *pardos*, *pardalis*, leopard; in reference to the prominent spots on the tepals and labellum.

FLOWERING PERIOD

December to March

DISTRIBUTION

Widespread in the wetter parts of western Victoria and extending into south-eastern South Australia. The new species is abundant in the forests to the north of Portland (grids E4, E5, E12, E13) and in the vicinity of Ballarat (grids J35, J44, J26, J27, N19, N20, N11). There is also a disjunct easterly record from The Basin in the Dandenong Ranges (photo; J. Jeanes *pers. comm.*).

HABITAT

Open forest, usually with an understorey dominated by bracken, sometimes shrubby. Soils include tertiary sands, sandy clay loams, auriferous quartz-bearing loams and brown clay loams.

NOTES

It is remarkable that such a widespread common taxon has remained unnamed for so long. The new species usually grows with *D. roseum*, often in very close proximity, and has more than likely been passed over as a variant of that species. Hybrids between the two are unknown despite several searches. Both species have recurved perianth segments but *D. pardalinum* has much paler flowers, which open pale pink and quickly fade to white, with prominent coarse (mostly 0.9-1.3 mm across) reddish spots on the tepals (bright rose pink flowers in *D. roseum* with fine spots and speckles [mostly 0.3-0.6 mm across] on the tepals. Whereas the labellum of *D. roseum* is pink with prominent darker stripes and dark pink hairs, that of *D. pardalinum* is white with coarse reddish spots and white hairs. The overall pale appearance of the new species makes it readily discernible from a distance and identifiable in mixed populations with *D. roseum*. Comparable floral cards of both species are shown in Fig. 2.

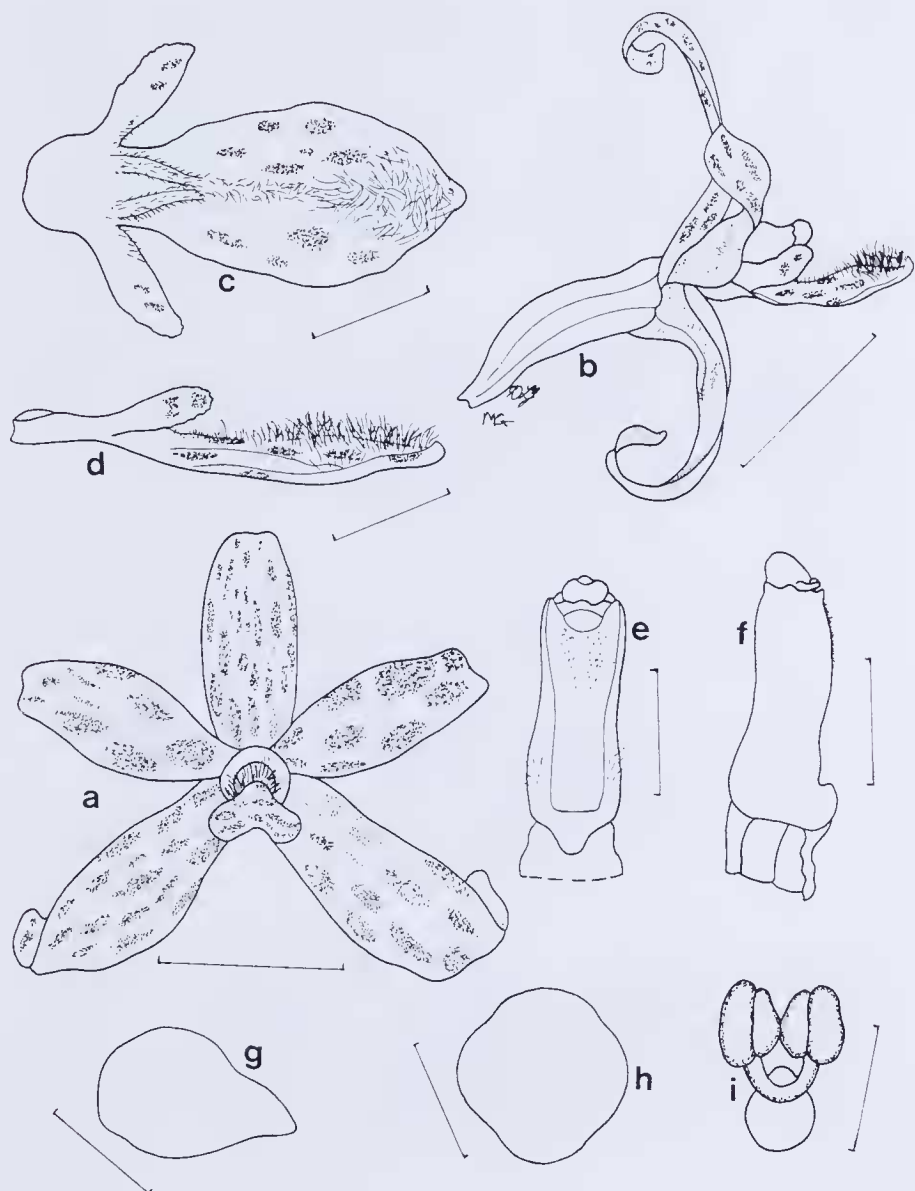


Fig. 1. *Dipodium pardalinum*, D.L.Jones. a - flower from front, scale-bar = 1 cm. b - flower from side, scale-bar = 1 cm. c - labellum from above, scale bar = 4 mm. d - labellum from side, scale-bar = 4 mm. e - column from front, scale-bar = 4 mm. f - column from side, scale-bar = 4 mm. g - anther cap from side, scale-bar = 1 mm. h - anther cap from above, scale-bar = 1 mm. i - pollinarium, scale-bar = 1 mm. All drawn from Jones 12837 (CBG)

Dipodium roseum

2.2 km west along Jarretts Rd, Heathmere, Vic, DLT 12835, 10-2-1994



Dipodium pardalinum

2.2 km west along Jarretts Rd, Heathmere, Vic, DLT 12834, 10-2-1994



Fig. 2. Dissected floral cards of specimens of *Dipodium roseum* from Jones 12835 (CBG) and *D. pardalinum* from Jones 12834 (CBG).

CONSERVATION STATUS

Widely distributed, locally common and conserved in National Parks.

SELECTED COLLECTIONS (17 examined)

VICTORIA: Cobboobonee State Forest, Heathmere, 18 Mar. 1992, *Beecham* (CBG); Bells Reef Rd, c. 5 km W of Daylesford, 21 Feb. 1993, *Entwisle 2181* (MEL); c. 7.7 km along Fish Holes Rd, near junction with Boiling Swamp Rd, Heathmere, 10 Feb. 1994, *Jones 12841* (CBG); Meaghers Rd, c. 15 km N of Portland, 10 Feb. 1994, *Jones 12830* (CBG, MEL); c. 8.6 km N of Heywood, 11 Feb. 1994, *Jones 12842* (CBG); between Smythesdale and Smythes Ck, c. 12 km W of Ballarat, 11 Feb. 1994, *Jones 12845* (CBG); c. 2.4 km SW of Creswick towards Sulky, 11 Feb. 1994, *Jones 12846* (CBG, MEL); Bells Reef Rd, Wombat State Forest, 11 Feb. 1994, *Jones 12847* (CBG); c. 1.3 km SW of Denver, 11 Feb. 1994, *Jones 12849* (CBG, MEL).

SOUTH AUSTRALIA: just N of Naracoorte, 30 Dec. 1994, *Murfet 2146* (CBG).

Acknowledgements

I thank the following people for useful discussions about this species and in some cases for supplying specimens and information on localities; Tim Entwisle, Jeff Jeanes, Paul Barnett, Geoff Beilby, Everett Foster, Peter Branwhite, Bob Bates, Denzel Murfet, Kath Alcock, Dorothy Woolcock and the late Collin Woolcock. The Directors of the Australian Orchid Foundation are thanked for their support of field operatives and I thank the Directors of AD, CANB, HO, MEL for allowing me access to specimens. I am also grateful to my wife Barbara for assistance and companionship while in the field, Lyn Craven for the Latin diagnosis and Mark Clements, Andrew Young, Jo Palmer and Ben Wallace for commenting on the manuscript. Marion Garratt prepared the illustration from my sketches.

References

- Entwisle, T.J. (1994). *Dipodium* In N.G. Walsh & T.J. Entwisle (eds). *Flora of Victoria*. Vol. 2. (Inkata Press: Melbourne.) pp. 899-901.
- Jones, D.L. & Clements, M.A. (1987). New orchid taxa from south-eastern Queensland. *Proceedings of the Royal Society of Queensland* 98: 123-32.
- Jones, D.L. (1991). New Taxa of Australian Orchidaceae. *Australian Orchid Research* 2: 48-51.

Revised paper received 18 September 1995.